

Briefing Information
Department of the Interior
U.S. Fish and Wildlife Service
Wichita Mountains Wildlife Refuge



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Introduction

The purpose of this briefing is to provide the reader with more in-depth information on the operation of the Wichita Mountains Wildlife Refuge than what is found in the general refuge leaflet.

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Visitor Center: 10:00 AM- 5:30 PM. Closed Tuesdays and major holidays.

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EARLY ADMINISTRATIVE HISTORY

DATE	ACTION	NAME OF AREA	DEPT	REMARKS
7-4-1901	Presidential Proclamation	Wichita Forest Reserve	Forestry Div. of General Land Office (DOI)	Prior to this action, lands were a part of Kiowa-Comanche-Apache Indian Territory
2-01-1905	Administrative	Wichita Forest Reserve	Bureau of Forestry USDA	Later became U.S. Forest Service
6-2-1905	Presidential Proclamation	Wichita Forest & Game Preserve	United States Department of Agriculture (USDA)	Est. as Game Preserve based on Congressional Act 1-24-1905
3-4-1907	Administrative	Wichita National Forest & Game Preserve	USDA	Redesignation of all forest preserves as National Forests
4-1-1935	Secretarial Order	Wichita National Forest & Game Reserve	USDA	Sec. of Agriculture Order: Admin. transferred from U.S. Forest Service to Bureau of Biological Survey
6-4-1936	Congressional Act (49 Stat. 1446)	Wichita Mountains Wildlife Refuge	USDA	Congressional Act that transferred jurisdiction between Bureau's and changed name
7-1-1939	Admin. Transfer	Wichita Mountains Wildlife Refuge	Department of Interior (DOI)	Reorganization Act of 1939: Bureau of Biol. Survey and Bureau of Fisheries moved to Interior Dept.
6-30-1940	Administrative	Wichita Mountains Wildlife Refuge	DOI	The two above Bureaus combined to become Fish and Wildlife Service

OBJECTIVES

National Wildlife Refuges are established and maintained for the restoration, preservation, and management of wildlife and wildlands habitat for the benefit and enjoyment of the people, where compatible. "National Wildlife Refuge System" means all lands, waters, and interests therein administered by the U.S. Fish and Wildlife Service as wildlife refuges and waterfowl production areas.

Now over 500 National Wildlife Refuges have been established and the system contains nearly 92 million acres of land and water that spans the continent from Arctic tundra to tropical forests. A wide variety of wildlife is protected on each of these refuges, but many were established for the protection of one or more unique species. At least 137 units protect one or more of 44 endangered species of wildlife.

The legal purpose of the Wichita Refuge, spelled out by the 1905 legislation, specifies the Refuge be "set aside for the protection of game animals and birds and be recognized as a breeding place therefore." Over the years a tradition of public use on the Refuge has developed. The rapid growth in the number of Refuge visitors has forced management into a "juggling act" to balance the opportunity for the public to enjoy Refuge wildlife and scenery with the official wildlife/habitat objective.

The Wichita Refuge was originally managed to protect wildlife species then in grave danger of extinction and to restore those species that had been extirpated from this area. Buffalo were successfully reintroduced, as were elk and wild turkey. White-tailed deer are native, have always been present, and flourished under protection. Longhorn cattle are not wildlife but were identified as having historical and cultural significance in this region and thus the refuge maintains a representative herd.

The reintroduction of wild animals has been done to restore populations of creatures once native to the Wichita Mountains; no effort has or will be made to stock the refuge with wildlife not native to the area. In fact, every effort will be made to remove non-native species from the refuge when necessary.

The efforts to perpetuate the major species of wildlife animals once imperiled have been amply rewarded. The big game herds have increased many-fold and no longer are in danger. The major goal of big game herd management has been changed from one of assuring the perpetuation of an endangered species to one which calls for the maintenance of representative herds, with numbers in keeping with good range use practices.

The big game herds, the scenery, the lakes, public use facilities and the increase in population and its mobility have combined to encourage annual visitation that regularly exceeds one and a half million.

REFUGE DESCRIPTION

Location: Entirely within the northwestern portion of Comanche County, Oklahoma.

Size: Area - 59,019.6 acres (about 92 square miles)
Greatest length and width: 18 ½ x 9 ½ miles

Original Ownership:
Public Domain -- 58,652 acres
367 acres (land exchange with Ft. Sill)
Total -- 59,019

Topography: Altitudes vary from a low of about 1350 feet above sea level near Elmer Thomas Lake. The general area rises in a northwest direction. The highest point in the refuge is Mt. Pinchot (2479') northwest of Refuge Headquarters. Other noteworthy peaks are

Mt. Scott	2464'
Mt. Sheridan	2450'
Baker Peak	2423'
Mt. Marcy	2420'
Mt. Lauramac	2430'
Mt. Tarbone	2390'
Elk Mtn.	2280'
Cedar Mtn.	2269'
North Mtn.	2232'

Drainage: The refuge is the top of watersheds, and drainage is in all directions from it to surrounding lands. All streams (except one short ½ mile stream) are intermittent and run only after significant rainfall.

Lakes: There are about 20 lakes in the refuge over 2 acres in size. All are manmade and most were constructed during the CCC and WPA period of the 1930's. The largest is Elmer Thomas Lake of 360 acres, with a fully accessible handicapped fishing pier. Most lakes are in the Public Use portion of the refuge.

Lost Lake is the oldest of the refuge impoundments. The dam was finished in 1926 and paid for from public subscription by the citizens of Lawton. The citizens of Cache constructed a small dam about the same time on Panther Creek. This dam was later enlarged by the CCC and the lake is now known as Burford.

SURFACE ACRES OF PUBLIC USE LAKES ON THE REFUGE

LAKE	SURFACE ACRES	REMARKS
Sunset	1.1	
Elmer Thomas	360	Lake was drained for replacement of dam in 1988. New Dam Completed in 1993.
Quanah Parker	96	
Jed Johnson	57.5	
Rush	51.6	
French	35	On West Cache Creek. There are seven "Fish Lakes."
Lost	10.2	Oldest refuge lake.
Caddo	11.4	
Burford	7.1	Second oldest lake site.
Osage	5.5	On Cow Creek.
Treasure	2.9	Water supply for Treasure Lake Job Corps Center
Post Oak	2.8	
Crater	9.3	
TOTAL: 500.4 Acres		

SURFACE ACRES OF LAKES: SPECIAL USE AREAS

LAKE	SURFACE ACRES	REMARKS
Grama	114	Water used in summer to recharge lakes downstream.
Comanche	42	Water used in summer to recharge lakes downstream.
Kiowa	11.4	Water used in summer to recharge stream game water holes.
Apache	4.2	Water available to recharge Burford
Cutthroat	1.5	Owned and operated by the City of Cooperton. Managed under a Special Use Permit.
TOTAL: 173.1 ACRES		TOTAL ALL LAKES: 673.5 ACRES

GAME ORIGIN AND INTRODUCTIONS

Deer white tail		None required		
Buffalo	10/07	New York Zoo	15	Four bulls added from Ft. Niobrara National Wildlife Refuge, Nebraska, 1940.
Elk	1911-12	Jackson Hble, Wyoming	20	One bull (1908) donated by City of Wichita, Kansas.
Texas Longhorn Cattle	1927	South Texas	30	29 foundation animals subsequently added.
Antelope	1910-11	Yellowstone National Park	11	Four additional introductions from other areas to 1940. All unsuccessful.
Turkey	1912	Missouri	6	1945-15 added from Aransas National Wildlife Refuge, Texas
Bighorn Sheep	1929	Canadian National Park, Alberta	7	Unable to adjust to climate

ANIMAL POPULATION OBJECTIVE LEVELS

The objective population level for elk bison, longhorn and deer were evaluated in 1985. The capacity is based on the condition of range. The present objective levels are based on the minimum levels the range can support. The following minimum population levels for the Wichita's big game animals have been set:

Longhorn cattle	280
Buffalo	480
Elk	380
Deer	450

WILDLIFE MANAGEMENT

Endangered Species

Black-capped Vireo

The largest breeding population of the endangered Black-capped vireo and the greatest amount of suitable habitat in the State of Oklahoma occurs on the refuge. Throughout its original historical breeding range from Kansas south to central Texas, the vireo population declined drastically primarily due to nest parasitism by the Brown-headed cowbird and secondarily to the loss of suitable nesting habitat. Current management includes annual monitoring of nesting success and population size, trapping and removal of Brown-headed cowbirds from the nesting area, and the utilization of prescribed fire to enhance or create oak shrubbery of a suitable height for preferred nesting sites. Research is ongoing to identify and map nesting territories and to document population size and nesting success.

Bald Eagle

Bald eagles utilize refuge lakes for feeding and secluded refuge sites for roosting during winter months. The number of wintering eagles varies from three to six in most years. Both Grama and Comanche Lakes are prime feeding areas for the eagles. Refuge management for this species is primarily protection from harassment, providing habitat and active fishery management to ensure an adequate food supply for the eagles.

Big Game Herds

The management of big game herds (including longhorn cattle) is complex while attempting to reach the following goals: maintaining high quality herds, representative of original stock, and in numbers within the carrying capacity of the available food supply. This policy does not support the production of as many animals as would be possible.

Buffalo

The original herds probably contained about equal numbers of bulls and cows and all age classes were represented from calves of the year to ancient bulls/cows.

With buffalo on the refuge near the 480 animal minimum, the annual calf crop number is a clue to the number to be removed each year. Prior to the removal program, the herd composition by age and sex is charted and selections are made for removal to bring the herd at the end of the season back to the assumed "typical" composition. Ceiling is maintained through annual live auction and by donation to public tax-supported agencies.

Texas Longhorn Cattle

The Texas longhorn steer is the animal which produces the large structure and wide horn spread. Cows have shorter, more slender horns and the bulls produce more massive horns not as long as the steers. The steers are those which are kept in the Public Use portion of the refuge for public viewing.

Each of the Wichita's longhorns has a "serial" number branded on the left hip, and a "running" WR on the left shoulder. The ancestry of each of the refuge's animals is a matter of record. This is possible since a single sire is placed with a small cow herd during the summer months, allowing all the calves to be born during a short period the following spring. The annual removal of surplus animals keeps the herd at the 280 animal minimum. Animals to be removed are selected for various reasons such as: age, horn development, overabundance of a given color, etc. Many are removed simply as a population reduction measure. A live auction is conducted, along with donations to public tax-supported agencies to maintain the ceiling.

Elk

Management of the elk herd on the refuge is similar to that of the buffalo. Most of the elk are found in the rugged portions of the Special Use area. Some are found in the Public Use section and in the Exhibition Pasture. The present minimum of 380 is representative of natural herd composition. Due to the difficulty of roundup, an aerial survey is conducted in January or February to determine herd numbers.

Removal of surplus animals is by means of lottery hunts held during the fall and winter. Applications for the special hunts are handled by the Oklahoma Department of Wildlife Conservation, with a drawing held in May each year.

White-tailed Deer

The present minimum is 450 and the herd remains stable. Removal of surplus animals is by means of lottery hunts held during the fall and winter. Applications for the special hunts are handled by the Oklahoma Department of Wildlife Conservation, with a drawing held in May each year. Herd numbers are monitored by a series of spotlight surveys conducted annually in August.

Wild Turkey

Wild turkey numbers remain fairly constant with over 400 birds in numerous small flocks scattered throughout the refuge. Little or no management is necessary as the birds are highly mobile and self-sufficient. Surpluses do not accumulate since any "crowding" of their territories results in turkey moving outside the refuge. No hunting is allowed.

MANAGEMENT TIME TABLE

MONTHS	J	F	M	A	M	JN	JY	AG	S	O	N	D
Longhorn calving			x	x	x							
Buffalo calving			x	x	x	x						
Elk calving						x						
Deer fawning					x	x	x					
Buffalo breeding							x	x				
Longhorn breeding					x	x	x	x				
Elk rutting								x	x			
Deer rutting										x	x	x
Longhorn roundup								x	x			
Buffalo roundup									x	x		
Longhorn auction									x			
Buffalo Auction										x		
Deer Hunt											x	
Elk Hunt												x

VEGETATION

The refuge lies at the vegetational crossroads of the plains country. Here are found excellent examples of the mixed prairie grasslands -- buffalo and grama grasses typical of the western short-grass prairies as well as the bluestems, Indian grass, and switch grass more typical of the eastern tall-grass areas.

The oak timberlands are typical of the "cross timbers" -- fingers of black jack and post oaks which penetrate the Oklahoma grasslands from the east. Along streams are found other woody species typical of this portion of Oklahoma, such as walnut, pecan, ash, elm, hackberry and cottonwood.

Species more typical of other climates are also found. Maples are present and are related either to the Eastern sugar maple or the Big-toothed maple of the Rockies. A small grove of live oak, typical of more southern sections of the country represents the most northern extension of this species in the plains country.

Grasslands and timber areas are managed to maintain good to excellent forage conditions for wildlife and to preserve them in near pristine conditions for study and enjoyment by all refuge visitors.

Annual surveys are made of the rangelands to determine the amount of forage utilization being experienced by grazing herds. These surveys are conducted in April prior to the new spring growth. Through several techniques, it is possible to determine if the various pasture areas are being over, under, or properly used. This information is useful in determining the numbers of animals which can be successfully maintained without overuse of the food supply. This work is done with the cooperation of the Soil Conservation Service.

PRESCRIBED BURNING

The Department of the Interior and the U.S. Fish and Wildlife Service recognize prescribed (controlled) burning as a useful tool in managing resources for the benefit of wildlife. The Wichita Mountains Wildlife Refuge maintains a prescribed burning plan.

Need for Prescribed Burning: Much of the Wichita's range was in the climax stage of plant succession. This includes both the grasslands and woodlands. For many years the refuge had practiced a policy of strict fire suppression. All range fires, either natural or man-made, were suppressed as quickly as possible. This practice resulted in the range reaching the climax stage. The practice had also allowed the Eastern red cedar (*Juniperus virginiana*), an invader, to proliferate and become a noxious range pest.

Objective: The principle objective in prescribed burning at the Wichita is to set back the plant succession from the current climax stage. Burning eliminates the accumulation of leaves, duff, and plant litter and allows the growth of shrubs, forbs and legumes needed in the diet of the four classes of herbivores found here. A secondary objective is the control of Eastern red cedar. In recent years, annual plans call for burning 10,000-15,000 acres. Typically, actual acres burned total between 5,000 and 10,000 acres because of weather and other limiting factors.

WILDERNESS AREAS

On September 3, 1964, Congress enacted the Wilderness Act "...To assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition."

Subsequent to the Wilderness Act, the Wichita Mountains wilderness was established by Public Law 91-504, dated October 23, 1970. The wilderness area consists of two units totaling 8,570 acres. The Charons Garden unit (5,723 acres) is located in the southwestern portion of the refuge and the North Mountain unit (2,847 acres) is located in the north-central part of the refuge.

The North Mountain unit is managed as a Research Natural Area, with access and use limited to scientific and educational purposes. Public use and access of the Charons Garden unit is limited to nature observations, photography, hiking and camping. Back country camping permits may be obtained from refuge officials for overnight visits into the Charons Garden Wilderness.

PUBLIC USES

The Wichita Mountains have been a natural attraction for man from prehistoric times. With the establishment of the area under former administrations, the refuge has, from its inception, drawn people for recreational purposes. Since World War II, this public use has increased.

Each year since 1962, the refuge visitation figure has exceeded one million persons annually. Over the years, methods of calculating entries, visitors, and visitor use days has changed, thus a comparison between years is not very meaningful without a complex explanation.

The average refuge visitor's stay varies with the activity being enjoyed. For example, a camper will stay longer than a picnicker. Many visitors enjoy several activities while on the refuge. Using 12 hours as a "visitor use" day yardstick, and with most visitors staying somewhat less than 12 hours, the "visitor use day" totals become somewhat less than the "visitor entry" figures.

Traffic counters at each of the five entrance gates are used to count the number of cars entering the refuge. Trend data and statistical formulas are used to convert these vehicle counts to the estimated number of persons coming to the refuge for recreational purposes.

PUBLIC USE PROGRAMS

Recreation: Wildlife/wildlands recreational opportunities on the refuge are many and diverse, encompassing the elements of sightseeing, nature study, active recreational pursuits including fishing, hiking, and associated uses such as picnicking and overnight camping. The refuge also provides facilities that are used extensively by organized groups for outings and youth group activities.

Interpretation: The refuge has an active interpretive program offering guided tours throughout the year combined with exhibits and displays at the Visitor Center. The following tours were offered during the calendar year 2006:

PUBLIC TOURS SCHEDULE

MONTH	ACTIVITY
January	In Search of Eagles
March	Historical Sites Tour
April	Spring Wilderness Hike
May	Wildflower Walk
June	Wildlife Tour
July	Under Cover of Darkness Tour
September/October	Bulging Elk Tour
November	Fall Foliage Walk

Tours are subject to change or cancellation depending on public interest and/or availability of funds and staffing. All activities are announced by news release to newspapers, radio and television stations. Current tour information may be obtained by contacting refuge headquarters. Fees are charged. Programs are conducted by volunteers under the guidance of refuge staff.

Environmental Education: Community involvement and school participation have been the major thrust of the Wichita Mountains environmental education programs.

Refuge-university relations have been very good, and environmental education workshops for credit have been held since 1976. There has also developed an environmental education materials center in the refuge library for use by staff as well as the public.

Environmental education study guides have also been developed by refuge personnel. These are used by various school groups, including environmental education workshop training groups.

Volunteer Program: There is a wide range of opportunities for volunteers. Trail maintenance, biological assistance, litter pick-up and visitor center duties are just some of the activities available. Volunteers have an important role in the management of the refuge.

PUBLIC USE FACILITIES

The Refuge Visitor Center is located at the junction of State Highways 115 and 49. Dioramas and hands-on exhibits compliment artwork, sculptures and taxidermy within the 22,000 sq. ft. facility. The four major habitat types, Rocklands, Aquatic, Mixed-grass Prairie and Cross Timbers, are highlighted. A night exhibit reveals the sounds after dark, while a history trail overlooks the scenery of the mountains from picture windows. The staff shows programs throughout the day in the 112-seat auditorium. There is no fee for entering the center. A bookstore/gift shop also is located in the center. Closed Tuesdays; hours 10:00am - 5:30 pm.

Trails

Dog Run Hollow -- A three-loop trail complex with trailheads at Dog Run Hollow, French Lake, Boulder Picnic Area and Lost Lake Picnic Area. From the French Lake trailhead, hikers can choose either the Elk Trail (1 mile), Longhorn Trail (2 miles), or Buffalo Trail (5 miles). The Kite Trail (1.5 miles) between Lost Lake Picnic Area and Boulder Picnic Area allows hikers access to the Buffalo Trail loop by a stream crossing.

Elk Mountain Trail -- The four mile trail leading around the west end of Elk Mountain meanders from Sunset Picnic Area to Post Oak/Treasure Lake parking area. A side trail from Sunset Picnic Area leads to the top of Elk Mountain. Trailheads at Sunset Picnic Area and Post Oak Lake are marked by trail maps and information signs.

Little Baldy Mountain Trail -- A 1.5 mile trail along the western edge of Quanah Parker Lake with a side trail leading to the top of Little Baldy Mountain. The trail may be taken from Quanah Parker Environmental Education Center or the Quanah Parker Dam.

Environmental Education Interpretive Trail -- a .25-mile handicapped accessible trail with exposed gravel surface concrete sidewalks and interpretive signs. Access is from the Quanah Parker Environmental Education Center parking lot. Handicapped visitors may use this trail for fishing access at Quanah Parker Lake. Handicapped parking is designated.

Wayside Interpretive Exhibits -- The entrances at Cache and Medicine Park have wayside exhibits displaying photos and graphics and a map of the refuge.

General Recreation Areas and Facilities -- Following is a list of the general recreation areas and the facilities contained in each area.

AREA	
Camp Doris (fee area)	90 campsites (23 with electrical hookups). 3 group sites (2 with shelters) Drinking water/ showers/ flush toilets Chemical toilets (14), dump station
Boulder/Lost Lake Picnic Areas	76 picnic sites with table, fire grate, and fire ring Vault toilets (6)
Sunset Picnic Area	19 Picnic sites with table, fire grate, and fire ring Vault toilets (4)
Mt. Scott Picnic Area	30 picnic sites with table, and fire ring Vault toilets (6)
Fawn Creek Youth Camping Area (by reservation for youth and scout groups)	4 sites with 16 tables, 8 fire grates, and 8 fire rings Vault toilets (2)

Drinking water is available at Refuge Headquarters, Visitor Center, Environmental Education Center, and Camp Doris.